

REMARKS

Claims 1-6 are pending in this application. All of the pending claims are rejected.

Claims 1 and 6 are currently amended. Reconsideration is requested.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0054767 (“Karaoguz”) in view of U.S. 6,681,256 (“Kuntze”). The Examiner concedes that Karaoguz fails to teach logic for selecting one of the stations from which a message was received (requesting association), but asserts that Kuntze does so at col. 7, lines 48-67 and col. 8, lines 1-10, 27-35. Because Kuntze describes channel selection rather than AP/STA selection in that passage, Applicant respectfully traverses. A typical prior art access point (“AP”) is configured to accept each and every station (“STA”) that requests association. This can cause a problem because the AP is unable to prevent itself from becoming overloaded. Some have attempted to solve this problem with master servers that control all associations for an entire network. While master server solutions seem plausible in theory, real world conditions often mitigate their effectiveness. For example, supplying the master server with the required data in a timely manner can be difficult. Further, limiting equipment options to APs and STAs that are actually configured to provide the data required by the master server can be problematic. Further, the master server causes scalability and single failure point issues. Perhaps most troublesome, in many residential and office environments the “network” cannot practically be placed under the control of a single master server, e.g., adjacent companies A and B have separate wireless networks which do not cooperate. This application describes an alternative solution which includes an “auction” of association rights. The auction is an iterative process. In each iteration, each STA selects the AP which it calculates to be capable of providing best service. If the selected AP is not the AP with which the STA is currently associated, the STA then sends a

message to the selected AP requesting association, i.e., the STA attempts to migrate. The association request message is referred to as a “bid” message in the detailed description. If the APs receiving these bids operated as typical prior art APs (accepted all requests to become associated), this could cause a problem. In particular, associations would tend to oscillate in successive iterations as APs alternately appear more and less desirable for association. This problem is ameliorated by limiting the number of bids that are accepted in each iteration. In particular, each AP selects a limited number of received bids, e.g., one bid, per iteration, based on a predetermined evaluation parameter, e.g., the improvement in service that the STA would experience if the “bid” were accepted. The result is typically a more stable and balanced network. Further, it should be noted that many of the drawbacks of the master server are at least lessened by having the AP operate in the claimed manner and make association decisions. The Examiner will appreciate that Applicant is not arguing that all of these limitations are recited in the claims of this application. Indeed, Applicant has filed other applications which recite aspects of the bid messages from the perspective of the STA. The claims of this application recite aspects of bid selection from the perspective of the AP.

Turning now to the cited references, neither Karaoguz nor Kuntze, either alone or in combination, teach that an AP selects only a subset of the association requests received from STAs. Claims 1 and 6 have been amended to emphasize this feature by reciting that the AP rejects at least one of the stations from which the message was received to become associated with the access point based upon the evaluation in a given cycle. If not all bids are accepted, it follows that some bids are rejected. Note, however, that the rejection need not be explicit, e.g., it is not necessary that the AP signal a rejection to the STA. Withdrawal of the rejections is therefore requested.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned, Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

9/13/2007 /Holmes W. Anderson/
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